AMENDMENTS TO THE CLAIMS

1. (currently amended) An immunoglobulin molecule or fragment thereof comprising ~~a region wherein one or more amino acid residues of~~ a complementarity determining region (CDR), wherein a thrombopoietin (TPO) mimetic replaces a single portion of said CDR, said portion comprising one or more contiguous amino acid residues ~~are replaced with a peptide mimetic selected from the group consisting of erythropoietin (EPO) mimetics and thrombopoietin (TPO) mimetics~~, wherein the immunoglobulin molecule or fragment thereof binds to and agonizes a ~~n EPO or~~ TPO receptor.

2. (original) An immunoglobulin molecule or fragment thereof according to claim 1 further comprising at least one flanking sequence including at least one amino acid covalently linked to at least one end of the peptide mimetic.

3. (original) An immunoglobulin molecule or fragment thereof according to claim 2 wherein the at least one flanking sequence includes a flanking sequence having a proline that is covalently linked to the peptide mimetic.

4. (canceled)

5. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the immunoglobulin molecule fragment is selected from the group consisting of Fab fragment, $F(ab')_2$ fragment and scFv fragment.

6. (original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the immunoglobulin molecule is a full IgG molecule.

7. (original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is located on a light chain.

8. (original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is located on a heavy chain.

9. (original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is selected from the group consisting of a CDR3 of a heavy chain and a CDR2 of a light chain.

10. (original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is selected from the group consisting of CDR3 of a heavy chain and CDR2 of a heavy chain.

11. (original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is selected from the group consisting of CDR3 of a heavy chain and CDR1 of a light chain.

Claims 12-17 (canceled).

18. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the TPO mimetic comprises the amino acid sequence set forth in SEQ. ID. NO. 1.

19. (original) An immunoglobulin molecule or fragment thereof according to claim 3 wherein the CDR is replaced with a peptide having a sequence including that set forth in SEQ. ID. NO. 2.

20. (withdrawn) An immunoglobulin molecule or fragment thereof according to claim 2 wherein the CDR is replaced with a peptide comprising an amino acid sequence selected from the group consisting of SEQ. ID. NO. 25, SEQ. ID. NO. 27, SEQ. ID. NO. 29, SEQ. ID. NO. 31, SEQ. ID. NO. 33, SEQ. ID. NO. 35, SEQ. ID. NO. 37, SEQ. ID. NO. 39, SEQ. ID. NO. 41, SEQ. ID. NO. 43, SEQ. ID. NO. 45, SEQ. ID. NO. 47, and SEQ. ID. NO. 49.

21. (withdrawn) An immunoglobulin molecule or fragment thereof according to claim 2 wherein the CDR is replaced with a peptide comprising an amino acid sequence selected from the group consisting of SEQ. ID. NO. 31, SEQ. ID. NO. 35, SEQ. ID. NO. 37, SEQ. ID. NO. 39, SEQ. ID. NO. 41, SEQ. ID. NO. 43, SEQ. ID. NO. 45, and SEQ. ID. NO. 49.

22. (original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the immunoglobulin molecule or fragment thereof is human.

23. (original) An immunoglobulin molecule or fragment thereof according to claim 22 wherein the immunoglobulin molecule or fragment thereof is anti-tetanus toxoid.

Claims 24-35 (canceled).

36. (original) A composition comprising an immunoglobulin or fragment thereof according to claim 1 and a pharmaceutically acceptable carrier.

Claims 37-43 (canceled).

44. (currently amended) An immunoglobulin molecule or fragment thereof comprising ~~a region wherein one or more amino acid residues of~~ a CDR, wherein ~~are replaced with~~ a biologically active peptide flanked with a proline at the carboxy terminus of the biologically active peptide replaces a single portion of said CDR, said portion comprising one or more contiguous amino acid residues, to create a resulting immunoglobulin molecule or fragment thereof, wherein said biologically active peptide has a biological activity and wherein the resulting immunoglobulin molecule or fragment thereof exhibits the biological activity of the biologically active peptide.

Claims 45-84 (canceled).

85. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 44 wherein the biologically active peptide is flanked with a proline at its carboxy terminus and flanked with an amino acid sequence at its amino terminus.

86. (currently amended) An immunoglobulin molecule or fragment thereof comprising ~~a region wherein one or more amino acid residues of~~ a CDR, wherein ~~are replaced with~~ a biologically active peptide replaces a single portion of said CDR, said portion comprising one or more contiguous amino acid residues, wherein ~~and~~ the biologically active peptide is flanked at its carboxy terminus with an amino acid sequence selected from the group consisting of proline-valine, proline-aspartic acid, proline-isoleucine, serine-asparagine, serine-lysine, serine-glycine, serine-arginine, leucine-histidine, leucine-glutamic acid, leucine-alanine, leucine-phenylalanine, valine-glutamine, valine-serine, valine-alanine, valine-asparagine, isoleucine-serine, isoleucine-tyrosine, asparagine-proline, asparagine-serine, asparagine-tryptophan, asparagine-valine, phenylalanine-valine, threonine-serine, methionine-alanine, arginine-serine, arginine-glycine, arginine-threonine, arginine-leucine, arginine-valine, tryptophan-arginine, tryptophan-tryptophan, alanine-arginine, aspartic acid-valine, glycine-tyrosine, glutamine-arginine, and glycine-lysine, to create a resulting immunoglobulin molecule or fragment thereof, wherein said biologically active peptide has a biological activity and wherein the resulting immunoglobulin molecule or fragment thereof exhibits the biological activity of the biologically active peptide.

87. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 44 wherein the biologically active peptide is flanked at its carboxy terminus with an amino acid sequence selected from the group consisting of proline-valine, proline-aspartic acid, proline-isoleucine, and asparagine-proline.

88. (canceled)

89. (original) An immunoglobulin molecule or fragment thereof according to claim 85 wherein the biologically active peptide is flanked at its amino terminus with an amino acid sequence selected from the group consisting of tryptophan-leucine, valine-valine, glycine-proline, leucine-proline, leucine-tyrosine, serine-leucine, serine-isoleucine, serine-proline, threonine-methionine, threonine-tyrosine, threonine-proline, glutamine-threonine, glutamine-glutamic acid, glutamine-leucine, arginine-methionine, arginine-asparagine, arginine-threonine, arginine-glycine, arginine-

serine, lysine-glutamic acid, lysine-glycine, alanine-histidine, histidine-glycine, histidine-leucine and asparagine-proline.

Claims 90-95 (canceled).

96. (currently amended) An immunoglobulin molecule or fragment thereof comprising ~~a region wherein one or more amino acid residues of~~ a complementarity determining region (CDR), wherein ~~are replaced with~~ a peptide comprising SEQ ID NO. 2 replaces a single portion of said CDR, said portion comprising one or more contiguous amino acid residues, and wherein the immunoglobulin molecule or fragment thereof binds to and agonizes a TPO receptor.

97. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 2 wherein the flanking sequence consists of two amino acids.

98. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 3 wherein the flanking sequence consists of two amino acids.

99. (currently amended) An immunoglobulin molecule or fragment thereof comprising ~~a region wherein one or more amino acid residues of~~ a CDR, wherein ~~are replaced with~~ an agonist peptide mimetic replaces a single portion of said CDR, said portion comprising one or more contiguous amino acid residues, and wherein the resulting immunoglobulin molecule or fragment thereof binds to and agonizes a receptor.

100. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 further comprising at least one flanking sequence including at least one amino acid covalently linked to at least one end of the peptide mimetic.

101. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 100 wherein the at least one flanking sequence includes a flanking sequence having a proline that is covalently linked to the peptide mimetic.

102. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 100 wherein the flanking sequence consists of two amino acids.

103. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 101 wherein the flanking sequence consists of two amino acids.

104. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 wherein the immunoglobulin molecule fragment is selected from the group consisting of Fab fragment, $F(ab')_2$ fragment and scFv fragment.

105. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 wherein the immunoglobulin molecule is a full IgG molecule.

106. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 wherein the CDR is located on a heavy chain.

107. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 wherein the CDR is located on a light chain.

108. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 wherein the CDR is selected from the group consisting of CDR3 of a heavy chain and CDR2 of a heavy chain.

109. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 wherein the CDR is selected from the group consisting of CDR3 of a heavy chain and CDR1 of a light chain.

110. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 wherein the immunoglobulin molecule or fragment thereof is human.

111. (previously presented) An immunoglobulin molecule or fragment thereof according to claim 99 wherein the immunoglobulin molecule or fragment thereof is anti-tetanus toxoid.

112. (previously presented) A composition comprising an immunoglobulin or fragment thereof according to claim 99 and a pharmaceutically acceptable carrier.

113. (new) An immunoglobulin molecule or fragment thereof comprising a complementarity determining region (CDR), wherein an erythropoietin (EPO) mimetic replaces a single portion of said CDR, said portion comprising one or more contiguous amino acid residues, wherein the immunoglobulin molecule or fragment thereof binds to and agonizes an EPO receptor.

114. (new) An immunoglobulin molecule or fragment thereof according to claim 113 further comprising at least one flanking sequence including at least one amino acid covalently linked to at least one end of the peptide mimetic.

115. (new) An immunoglobulin molecule or fragment thereof according to claim 114 wherein the at least one flanking sequence includes a flanking sequence having a proline that is covalently linked to the peptide mimetic.

116. (new) An immunoglobulin molecule or fragment thereof according to claim 113 wherein the immunoglobulin molecule fragment is selected from the group consisting of Fab fragment, $F(ab')_2$ fragment and scFv fragment.

117. (new) An immunoglobulin molecule according to claim 113 wherein the immunoglobulin molecule is a full IgG molecule.

118. (new) An immunoglobulin molecule or fragment thereof according to claim 113 wherein the CDR is located on a light chain.

119. (new) An immunoglobulin molecule or fragment thereof according to claim 113 wherein the CDR is located on a heavy chain.

120. (new) An immunoglobulin molecule or fragment thereof according to claim 113 wherein the CDR is selected from the group consisting of a CDR3 of a heavy chain and a CDR2 of a light chain.

121. (new) An immunoglobulin molecule or fragment thereof according to claim 113 wherein the CDR is selected from the group consisting of CDR3 of a heavy chain and CDR2 of a heavy chain.

122. (new) An immunoglobulin molecule or fragment thereof according to claim 113 wherein the CDR is selected from the group consisting of CDR3 of a heavy chain and CDR1 of a light chain.

123. (new) An immunoglobulin or fragment thereof according to claim 113 wherein the EPO mimetic corresponds to the sequence set forth in SEQ. ID. NO. 3.

124. (new) An immunoglobulin molecule or fragment thereof according to claim 113 wherein the immunoglobulin molecule or fragment thereof is human.

125. (new) An immunoglobulin molecule or fragment thereof according to claim 124 wherein the immunoglobulin molecule or fragment thereof is anti-tetanus toxoid.

126. (new) A composition comprising an immunoglobulin or fragment thereof according to claim 113 and a pharmaceutically acceptable carrier.